

January 12, 2009

PG&E Letter DCL-09-001

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Licensee Event Report 1-2008-002-00
Technical Specification 3.4.15 Violation Due to Lack of Bases Clarity

Dear Commissioners and Staff:

In accordance with 10 CFR 50.73(a)(2)(i)(B), Pacific Gas and Electric Company is submitting the enclosed Licensee Event Report regarding a violation of Technical Specification (TS) 3.4.15, "RCS Leakage Detection Instrumentation," due to a lack of clarity in the TS Bases regarding the required performance capability of the containment gaseous radiation monitor.

There are no new or revised regulatory commitments in this report.

This event did not adversely affect the health and safety of the public.

Sincerely,

James R. Becker
Site Vice President

ddm/2246/50137352

Enclosure

cc/enc: Elmo E. Collins, NRC Region IV
Michael S. Peck, NRC Senior Resident Inspector
Alan B. Wang, NRR Project Manager
Diablo Distribution
INPO

LICENSEE EVENT REPORT (LER)(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME

Diablo Canyon Unit 1

2. DOCKET NUMBER**05000275****3. PAGE****1 OF 5****4. TITLE**Technical Specification 3.4.15 Violation Due to Lack of Bases Clarity

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
09	12	2008	2008	- 002 -	00	01	12	2009	Diablo Canyon Unit 2	05000323

9. OPERATING MODE

1

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)

- | | | | |
|---|---|---|--|
| <input type="checkbox"/> 20.2201(b) | <input type="checkbox"/> 20.2203(a)(3)(i) | <input type="checkbox"/> 50.73(a)(2)(i)(C) | <input type="checkbox"/> 50.73(a)(2)(vii) |
| <input type="checkbox"/> 20.2201(d) | <input type="checkbox"/> 20.2203(a)(3)(ii) | <input type="checkbox"/> 50.73(a)(2)(ii)(A) | <input type="checkbox"/> 50.73(a)(2)(viii)(A) |
| <input type="checkbox"/> 20.2203(a)(1) | <input type="checkbox"/> 20.2203(a)(4) | <input type="checkbox"/> 50.73(a)(2)(ii)(B) | <input type="checkbox"/> 50.73(a)(2)(viii)(B) |
| <input type="checkbox"/> 20.2203(a)(2)(i) | <input type="checkbox"/> 50.36(c)(1)(i)(A) | <input type="checkbox"/> 50.73(a)(2)(iii) | <input type="checkbox"/> 50.73(a)(2)(ix)(A) |
| <input type="checkbox"/> 20.2203(a)(2)(ii) | <input type="checkbox"/> 50.36(c)(1)(ii)(A) | <input type="checkbox"/> 50.73(a)(2)(iv)(A) | <input type="checkbox"/> 50.73(a)(2)(x) |
| <input type="checkbox"/> 20.2203(a)(2)(iii) | <input type="checkbox"/> 50.36(c)(2) | <input type="checkbox"/> 50.73(a)(2)(v)(A) | <input type="checkbox"/> 73.71(a)(4) |
| <input type="checkbox"/> 20.2203(a)(2)(iv) | <input type="checkbox"/> 50.46(a)(3)(ii) | <input type="checkbox"/> 50.73(a)(2)(v)(B) | <input type="checkbox"/> 73.71(a)(5) |
| <input type="checkbox"/> 20.2203(a)(2)(v) | <input type="checkbox"/> 50.73(a)(2)(i)(A) | <input type="checkbox"/> 50.73(a)(2)(v)(C) | <input type="checkbox"/> OTHER |
| <input type="checkbox"/> 20.2203(a)(2)(vi) | <input checked="" type="checkbox"/> 50.73(a)(2)(i)(B) | <input type="checkbox"/> 50.73(a)(2)(v)(D) | Specify in Abstract below
or in NRC Form 366A |

10. POWER LEVEL

100

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME

Steven W. Hamilton – Senior Regulatory Services Engineer

TELEPHONE NUMBER (Include Area Code)

(805) 545-3449

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
				No					

14. SUPPLEMENTAL REPORT EXPECTED☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE)☒ NO**15. EXPECTED SUBMISSION DATE**

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On November 12, 2008, with Units 1 and 2 in Mode 1 (Power Operation) at approximately 100 percent power, a Technical Specification (TS) 3.4.15, "RCS Leakage Detection Instrumentation," violation was received in NRC Inspection Report (IR) 2008-004, dated November 3, 2008. This IR identified a failure to comply with the Limiting Conditions for Operation (LCO) of TS 3.4.15 for a period longer than allowed by TS which is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as operation in a condition prohibited by TS.

The cause of this event is a lack of clarity in the TS 3.4.15 Bases regarding the capability of the containment atmosphere gaseous radiation monitor (RM-12) to detect (i.e., RM-12 sensitivity) versus response to the variable, RCS radioactivity and leakage rate, within a specific response time.

Corrective actions include a revision to the TS 3.4.15 Bases such that operability of RM-12 is more clearly dependent on the detector sensitivity and not the leakage response time.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)								LER NUMBER (6)						PAGE (3)		
									YEAR	SEQUENTIAL NUMBER				REVISION NUMBER			
Diablo Canyon Unit 1	0	5	0	0	0	2	7	5	2008	-	0	0	2	-	0	0	2 OF 5

TEXT

I. Plant Conditions

Units 1 and 2 have operated in various Modes and at various reactor power levels from 0 to 100 percent reactor power with the potential for the identified condition.

II. Description of Problem

A. Background

Technical Specification (TS) 3.4.15, "RCS Leakage Detection Instrumentation," Limiting Condition for Operation (LCO) requires either a containment fan cooler unit condensate collection monitor or the containment atmosphere gaseous radioactivity monitor (RM-12) to be operable in Modes 1, 2, 3, and 4. The bases for TS 3.4.15 states that the leak detection systems meet General Design Criteria (GDC) 30. GDC 30 states, in part, "Means shall be provided for detecting and, to the extent practical, identifying the location of the source of reactor coolant leakage."

Regulatory Guide (RG) 1.45 describes acceptable methods for selecting leakage detection systems. RG 1.45, Position C.5, states, in part, that the, "sensitivity and response time of each leakage detection system in regulatory Position 3 above employed for unidentified leakage should be adequate to detect a leakage rate, or its equivalent, of one gpm [gallons per minute] in less than one hour."

NRC Inspection Report (IR) 2008-004, dated November 3, 2008, and received November 12, 2008, identified a green noncited violation (NCV) for the containment atmosphere gaseous RM-12 inoperable for greater than the allowed out-of-service time. The NRC inspectors concluded that the leak detector was not operable because the conditions assumed for functionality, including a specified reactor coolant system (RCS) source term, were not met.

B. Event Description

On August 13, 2008, the NRC Resident Inspector identified that the source term assumed in the TS 3.4.15 leak detector design basis was not present in the reactor coolant system.

Between August 16 through September 18, 2008, the RCS specific activity was identified as being significantly below the activity that would be required to detect a one gpm RCS leak within one hour.

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Diablo Canyon Unit 1	0	5	0	0	0	2	7	5	2008	-	0	0	2	-	0	0	3 OF 5

TEXT

On September 23, 2008, utility licensed plant operators declared RM-12 inoperable (T0063891) based upon NRC Resident Inspector concerns regarding the ability of the RM to meet the TS 3.4.15 LCO.

On November 12, 2008, Pacific Gas and Electric Company (PG&E) received NRC IR 2008-004, dated November 3, 2008, that identified a green NCV for the containment atmosphere gaseous RM-12 being inoperable for greater than the allowed out-of-service time.

C. Status of Inoperable Structures, Systems, or Components that Contributed to the Event

None.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

The event was identified by NRC Resident Inspectors during the performance of routine scheduled plant inspections.

F. Operator Actions

On September 23, 2008, utility licensed plant operators declared RM-12 inoperable (T0063891) based upon NRC Resident Inspector concerns regarding the ability of RM-12 to meet the TS 3.4.15 LCO.

G. Safety System Responses

None.

III. Cause of the Problem

A. Immediate Cause

The containment atmosphere gaseous RM cannot be assured to detect a one gpm leak within one hour with normal low RCS activity levels. In addition, although RCS activity levels are currently low, it is expected the RCS activity levels will continue to decrease as industry initiatives for improved fuel performance are implemented. Predicting changing

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Diablo Canyon Unit 1	0	5	0	0	0	2	7	5	2008	-	0	0	2	-	0	0	4 OF 5

TEXT

conditions in RCS activity and the impact on the response time of the containment atmosphere gaseous RM is impractical.

B. Root Cause

The cause of this event is a lack of clarity in the TS 3.4.15 Bases statements regarding the capability of RM-12 to detect (i.e., RM-12 sensitivity) versus response to the variable, RCS radioactivity and leakage rate, within a specific response time.

IV. Assessment of Safety Consequences

There were no safety consequences as a result of this event. As noted in the referenced NRC IR 2008-004:

This finding was more than minor because less than adequate operability evaluations, if left uncorrected, would become a more significant safety concern. The inspectors determined this finding affected the Barrier Integrity Cornerstone. The inspectors used Inspection Manual Chapter 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," to analyze the significance of this finding. The inspectors concluded the finding is of low safety significance because the condition was not related to pressurized thermal shock, loss of cooling to the spent fuel pool, or fuel handling errors, or the loss of spent fuel pool inventory.

Therefore, the event is not considered risk significant, and it did not adversely affect the health and safety of the public.

V. Corrective Actions

A. Immediate Corrective Actions

Licensed plant operators declared RM-12 inoperable (T0063891), and verified the alternate RCS Leakage Detection systems were available, as required to comply with TS 3.4.15.

B. Corrective Actions to Prevent Recurrence

PG&E will revise TS 3.4.15 Bases such that operability of RM-12 is more clearly dependent on the detector sensitivity and not the leakage response time. This change will allow TS 3.4.15.c to be normally met using RM-12.

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Diablo Canyon Unit 1	0	5	0	0	0	2	7	5	2008	-	0	0	2	-	0	0	5 OF 5

TEXT

VI. Additional Information

A. Failed Components

None.

B. Previous Similar Events

None.

OUTGOING CORRESPONDENCE SCREEN **(Remove prior to NRC submittal)**

Document: PG&E Letter DCL-09-001

Subject: Technical Specification 3.4.15 Violation Due to Lack of Bases Clarity

File Location S:\RS\RA\LER\2008\RM-12 SENSITIVITY\DCL09001.DOC

FSAR Update Review

Utilizing the guidance in XI3.ID2, does the FSAR Update need to be revised? Yes ☐ No ☒
If "Yes", submit an FSAR Update Change Request in accordance with XI3.ID2 (or if this is an LAR, process in accordance with WG-9)

Commitment #A1

Statement of Commitment: PG&E will revise TS 3.4.15 Bases such that operability of RM-12 is more clearly dependent on the detector sensitivity and not the leakage response time.

Clarification. This change will allow TS 3.4.15.c to be normally met using RM-12.

Tracking Document:	AR or NCR 50137352	AE or ACT Task #3
Assigned To:	NAME	ORGANIZATION CODE
Commitment Type:	FIRM OR TARGET	DUE DATE:
Outage Commitment?	YES OR NO No	IF YES, WHICH? (E.G., 2R9, 1R10, ETC.)
PCD Commitment?	YES OR NO No	IF YES, LIST THE IMPLEMENTING DOCUMENTS (IF KNOWN)
Duplicate of New NCR Commitment in PCD?	YES OR NO	IF YES, LIST PCD NUMBER (e.g., T35905, etc.)
Old PCD Commitment being changed?	YES OR NO	IF YES, LIST PCD NUMBER, AND CLARIFY TO CLERICAL HOW COMMITMENT TO BE REVISED

Additional Information:

An industry initiative regarding this TS is currently under review by a Technical Specification Task Force (TSTF). TSTF-513, "Revise Operability Requirements and Actions for RCS Leakage Instrumentation," is currently being pursued to resolve this condition as an industry effort.

Per Final Safety Analysis Report (FSAR) Update, Section 5.2.7.4, a RCS source term equivalent to about 0.05 percent failed fuel is assumed for the monitor to detect a 2 gallon per minute RCS leak within one hour.